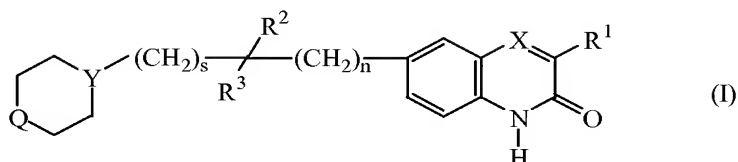


Listing of Claims:

This listing of claims replaces all prior versions, and listings, of claims in the captioned application.

5

1. (Original) A compound of formula (I),



10

the *N*-oxide forms, the addition salts and the stereo-chemically isomeric forms thereof, wherein

n is 0 or 1;

15

s is 0 or 1;

X is $-\text{N}=\text{}$ or $-\text{CR}^4=$, wherein R^4 is hydrogen or taken together with R^1 may form a bivalent radical of formula $-\text{CH}=\text{CH}-\text{CH}=\text{CH}-$;

20

Y is $-\text{N}<$ or $-\text{CH}<$;

Q is $-\text{NH}-$, $-\text{O}-$, $-\text{C}(\text{O})-$, $-\text{CH}_2-\text{CH}_2-$ or $-\text{CHR}^5-$, wherein R^5 is hydrogen, hydroxy, C_{1-6} alkyl, aryl C_{1-6} alkyl, C_{1-6} alkyloxycarbonyl, C_{1-6} alkyloxy C_{1-6} alkylamino or haloindazolyl;

25

R^1 is C_{1-6} alkyl or thienyl;

R^2 is hydrogen or taken together with R^3 may form $=\text{O}$;

30

R^3 is hydrogen, C_{1-6} alkyl or a radical selected from

$-\text{NR}^6\text{R}^7$ (a-1),

$-\text{O}-\text{H}$ (a-2),

$-\text{O}-\text{R}^8$ (a-3),

$-\text{S}-\text{R}^9$ (a-4), or

35

$-\text{C}\equiv\text{N}$ (a-5),

wherein

R^6 is $-CHO$, C_{1-6} alkyl, hydroxy C_{1-6} alkyl, C_{1-6} alkylcarbonyl,

di(C_{1-6} alkyl)amino C_{1-6} alkyl, C_{1-6} alkylcarbonylamino C_{1-6} alkyl,

piperidinyl C_{1-6} alkyl, piperidinyl C_{1-6} alkylaminocarbonyl, C_{1-6} alkyloxy,

5 C_{1-6} alkyloxy C_{1-6} alkyl, thienyl C_{1-6} alkyl, pyrrolyl C_{1-6} alkyl,

aryl C_{1-6} alkylpiperidinyl, arylcarbonyl C_{1-6} alkyl, arylcarbonylpiperidinyl C_{1-6} alkyl,

haloindozolylpiperidinyl C_{1-6} alkyl, or aryl C_{1-6} alkyl(C_{1-6} alkyl)amino C_{1-6} alkyl; and

R^7 is hydrogen or C_{1-6} alkyl;

R^8 is C_{1-6} alkyl, C_{1-6} alkylcarbonyl or di(C_{1-6} alkyl)amino C_{1-6} alkyl; and

10 R^9 is di(C_{1-6} alkyl)amino C_{1-6} alkyl;

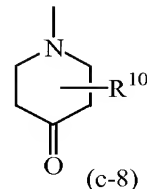
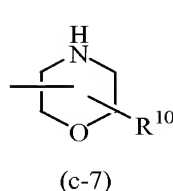
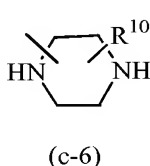
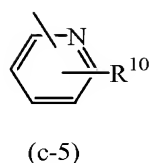
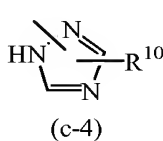
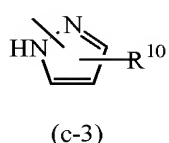
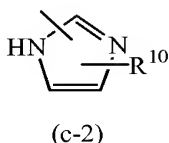
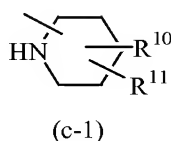
or R^3 is a group of formula

$-(CH_2)_t-Z-$ (b-1),

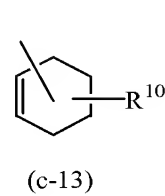
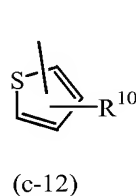
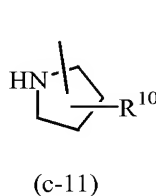
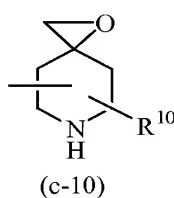
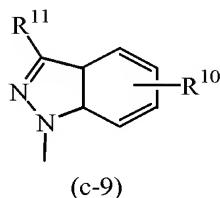
wherein

t is 0, 1 or 2;

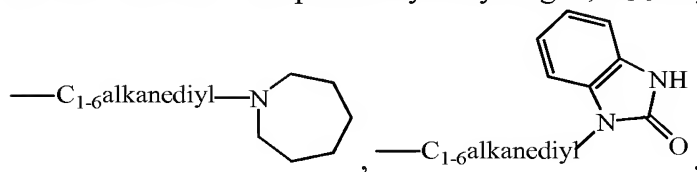
15 Z is a heterocyclic ring system selected from



20



wherein each R^{10} independently is hydrogen, C_{1-6} alkyl, aminocarbonyl, hydroxy,



C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, di(phenylC₂₋₆alkenyl),
piperidinylC₁₋₆alkyl, C₃₋₁₀cycloalkyl, C₃₋₁₀cycloalkylC₁₋₆alkyl,
aryloxy(hydroxy)C₁₋₆alkyl, haloindazolyl, arylC₁₋₆alkyl, arylC₂₋₆alkenyl,
morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino;
5 each R¹¹ independently is hydrogen, hydroxy, piperidinyl or aryl;

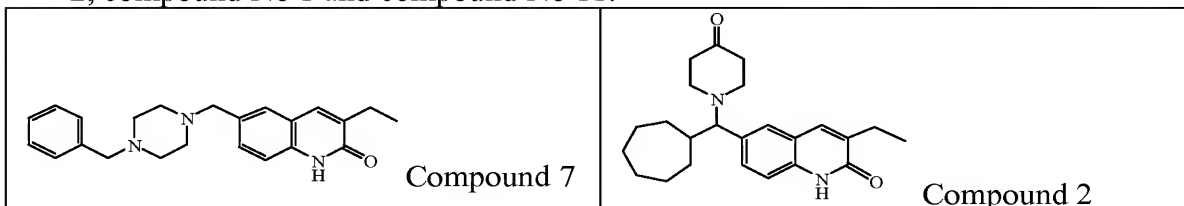
aryl is phenyl or phenyl substituted with halo, C₁₋₆alkyl or C₁₋₆alkyloxy;

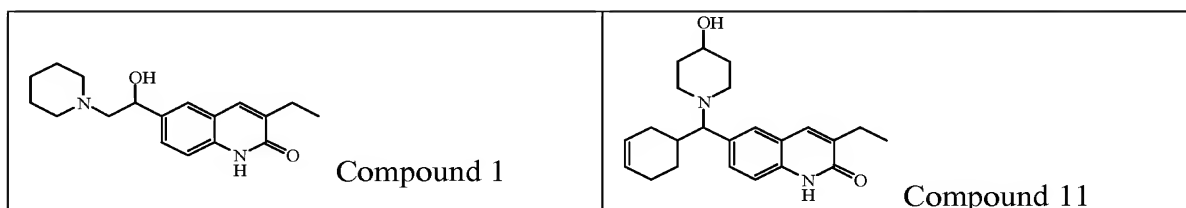
with the proviso that 6-(cyclohexyl-1*H*-imidazol-1-ylmethyl)-3-methyl-2(1*H*)-
10 quinoxalinone is not included.

2. (Original) A compound as claimed in claim 1 wherein X is -N= or -CH=; R¹ is C₁₋₆alkyl; R³ is hydrogen, C₁₋₆alkyl, a radical selected from (a-1), (a-2), (a-3) or (a-4) or a group of formula (b-1); R⁶ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl or C₁₋₆alkyloxyC₁₋₆alkyl;
15 R⁷ is hydrogen; R⁸ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl; t is 0 or 2; Z is a heterocyclic ring system selected from (c-1), (c-5), (c-6), (c-8), (c-10), (c-12) or (c-13); each R¹⁰ independently is hydrogen, C₁₋₆alkyl, hydroxy, C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino; each R¹¹ independently is hydrogen or hydroxy; and
20 aryl is phenyl.

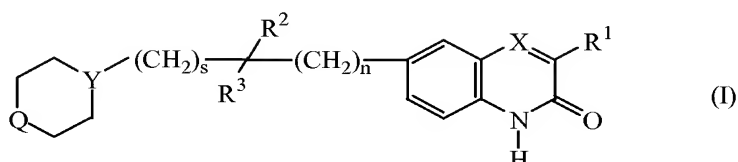
3. (Currently Amended) A compound according to claim 1 ~~and 2~~ wherein n is 0; X is CH; Q is -NH-, -CH₂-CH₂- or -CHR⁵-, wherein R⁵ is hydrogen, hydroxy, or arylC₁₋₆alkyl; R¹ is C₁₋₆alkyl; R² is hydrogen; R³ is hydrogen, hydroxy or a group of formula (b-1); t is 0; Z is a heterocyclic ring system selected from (c-8) or (c-13); each R¹⁰ independently is hydrogen; and aryl is phenyl.

4. (Currently Amended) A compound ~~according to claim 1, 2 and 3 wherein the compound is selected from the group consisting of: compound No 7, compound No 2, compound No 1 and compound No 11.~~





5. (Cancelled)
6. (Currently Amended) A pharmaceutical composition comprising pharmaceutically acceptable carriers and as an active ingredient a therapeutically effective amount of a compound as claimed in claim 1 to 4.
7. (Cancelled).
8. (Currently Amended) A method of treating ~~Use of a compound for the manufacture of a medicament for the treatment of~~ in a subject a PARP mediated disorder, comprising administering to the subject a therapeutically effective amount of ~~wherein the compound is a compound of formula (I)~~



the *N*-oxide forms, the pharmaceutically acceptable addition salts and the stereochemically isomeric forms thereof, wherein

n is 0 or 1;

s is 0 or 1;

X is -N= or -CR⁴=, wherein R⁴ is hydrogen or taken together with R¹ may form a bivalent radical of formula -CH=CH-CH=CH-;

Y is $-\text{N}<$ or $-\text{CH}<$;

Q is -NH-, -O-, -C(O)-, -CH₂-CH₂- or -CHR⁵-,

30 wherein R⁵ is hydrogen, hydroxy, C₁₋₆alkyl, arylC₁₋₆alkyl, C₁₋₆alkyloxycarbonyl,

C₁₋₆alkyloxyC₁₋₆alkylamino or haloindazolyl;

R¹ is C₁₋₆alkyl or thienyl;

5 R² is hydrogen or taken together with R³ may form =O;

R³ is hydrogen, C₁₋₆alkyl or a radical selected from

- NR⁶R⁷ (a-1),

-O-H (a-2),

10 -O-R⁸ (a-3),

-S- R⁹ (a-4), or

—C≡N (a-5),

wherein

15 R⁶ is -CHO, C₁₋₆alkyl, hydroxyC₁₋₆alkyl, C₁₋₆alkylcarbonyl,
di(C₁₋₆alkyl)aminoC₁₋₆alkyl, C₁₋₆alkylcarbonylaminoC₁₋₆alkyl,
piperidinyC₁₋₆alkyl, piperidinyC₁₋₆alkylaminocarbonyl, C₁₋₆alkyloxy,
C₁₋₆alkyloxyC₁₋₆alkyl, thienylC₁₋₆alkyl, pyrrolylC₁₋₆alkyl,
arylC₁₋₆alkylpiperidiny, arylcarbonylC₁₋₆alkyl, arylcarbonylpiperidinyC₁₋₆alkyl,
haloindozolypiperidinyC₁₋₆alkyl, or arylC₁₋₆alkyl(C₁₋₆alkyl)aminoC₁₋₆alkyl; and

20 R⁷ is hydrogen or C₁₋₆alkyl;

R⁸ is C₁₋₆alkyl, C₁₋₆alkylcarbonyl or di(C₁₋₆alkyl)aminoC₁₋₆alkyl; and

R⁹ is di(C₁₋₆alkyl)aminoC₁₋₆alkyl;

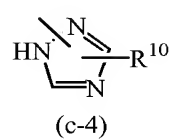
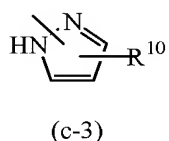
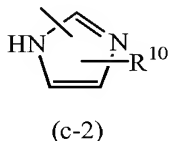
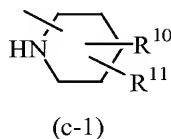
or R³ is a group of formula

-(CH₂)_t-Z- (b-1),

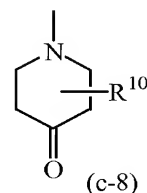
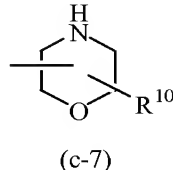
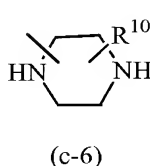
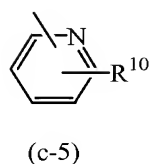
25 wherein

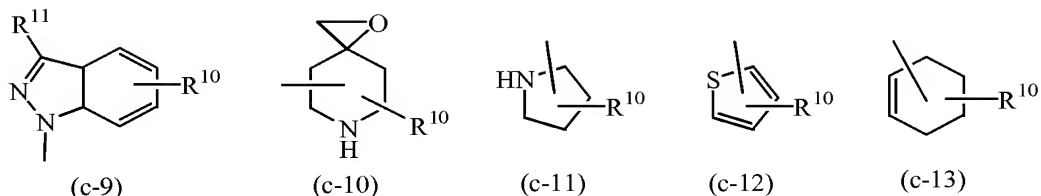
t is 0, 1 or 2;

Z is a heterocyclic ring system selected from

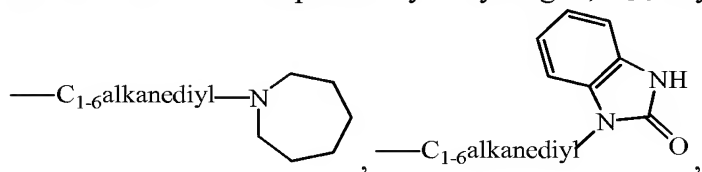


30





wherein each R¹⁰ independently is hydrogen, C₁₋₆alkyl, aminocarbonyl, hydroxy,



C₁₋₆alkyloxyC₁₋₆alkyl, C₁₋₆alkyloxyC₁₋₆alkylamino, di(phenylC₂₋₆alkenyl),
piperidinylC₁₋₆alkyl, C₃₋₁₀cycloalkyl, C₃₋₁₀cycloalkylC₁₋₆alkyl,
aryloxy(hydroxy)C₁₋₆alkyl, haloindazolyl, arylC₁₋₆alkyl, arylC₂₋₆alkenyl,
morpholino, C₁₋₆alkylimidazolyl, or pyridinylC₁₋₆alkylamino;
each R¹¹ independently is hydrogen, hydroxy, piperidinyl or aryl;

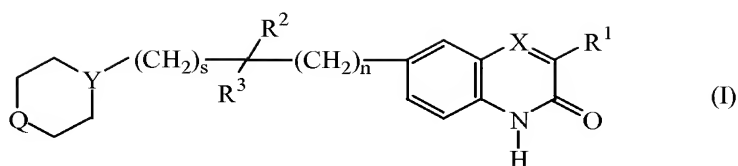
aryl is phenyl or phenyl substituted with halo, C₁₋₆alkyl or C₁₋₆alkyloxy.

9. (Cancelled)

10. (Currently Amended) A method for enhancing the effectiveness of chemotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to chemotherapy, prior to administration of said chemotherapy ~~Use according to claim 8 and 9 wherein the treatment involves chemosensitization.~~

11. (Currently Amended) A method for enhancing the effectiveness of radiotherapy of comprising administration of a compound according to claim 1, in a therapeutically effective amount so as to increase sensitivity of cells to ionizing radiation, prior to administration of said radiotherapy ~~Use according to claims 8 and 9 wherein the treatment involves radiosensitization.~~

12. (Original) A combination of a compound with a chemotherapeutic agent wherein said compound is a compound of formula (I)



the *N*-oxide forms, the pharmaceutically acceptable addition salts and the stereo-chemically isomeric forms thereof, wherein

5

n is 0 or 1;

s is 0 or 1;

10 *X* is $-\text{N}=\text{}$ or $-\text{CR}^4=$, wherein R^4 is hydrogen or taken together with R^1 may form a bivalent radical of formula $-\text{CH}=\text{CH}-\text{CH}=\text{CH}-$;

Y is $-\text{N}<$ or $-\text{CH}<$;

15 *Q* is $-\text{NH}-$, $-\text{O}-$, $-\text{C}(\text{O})-$, $-\text{CH}_2-\text{CH}_2-$ or $-\text{CHR}^5-$, wherein R^5 is hydrogen, hydroxy, C_{1-6} alkyl, aryl C_{1-6} alkyl, C_{1-6} alkyloxycarbonyl, C_{1-6} alkyloxy C_{1-6} alkylamino or haloindazolyl;

R^1 is C_{1-6} alkyl or thienyl;

20 R^2 is hydrogen or taken together with R^3 may form $=\text{O}$;

R^3 is hydrogen, C_{1-6} alkyl or a radical selected from

- 25
- NR^6R^7 (a-1),
 - $\text{O}-\text{H}$ (a-2),
 - $\text{O}-\text{R}^8$ (a-3),
 - $\text{S}-\text{R}^9$ (a-4), or
 - $-\text{C}\equiv\text{N}$ (a-5),

wherein

30 R^6 is $-\text{CHO}$, C_{1-6} alkyl, hydroxy C_{1-6} alkyl, C_{1-6} alkylcarbonyl, di(C_{1-6} alkyl)amino C_{1-6} alkyl, C_{1-6} alkylcarbonylamino C_{1-6} alkyl, piperidinyl C_{1-6} alkyl, piperidinyl C_{1-6} alkylaminocarbonyl, C_{1-6} alkyloxy, C_{1-6} alkyloxy C_{1-6} alkyl, thienyl C_{1-6} alkyl, pyrrolyl C_{1-6} alkyl, aryl C_{1-6} alkylpiperidinyl, arylcarbonyl C_{1-6} alkyl, arylcarbonylpiperidinyl C_{1-6} alkyl, haloindazolylpiperidinyl C_{1-6} alkyl, or aryl C_{1-6} alkyl(C_{1-6} alkyl)amino C_{1-6} alkyl; and

R^7 is hydrogen or C_{1-6} alkyl;

R^8 is C_{1-6} alkyl, C_{1-6} alkylcarbonyl or $di(C_{1-6}alkyl)aminoC_{1-6}alkyl$; and

R^9 is $di(C_{1-6}alkyl)aminoC_{1-6}alkyl$;

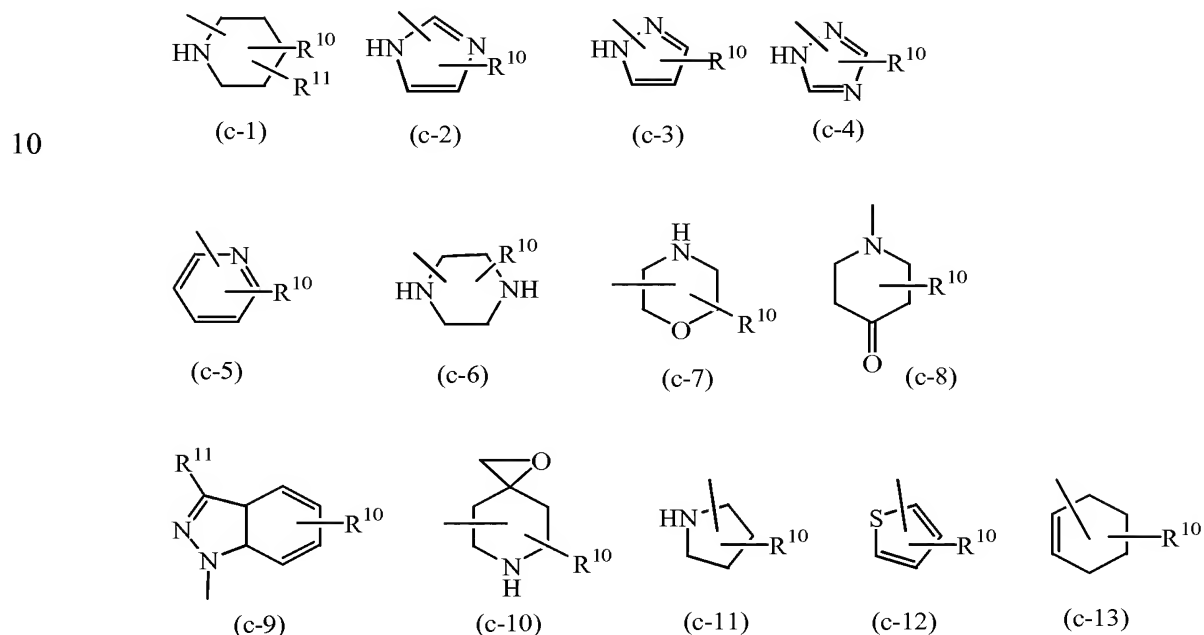
or R^3 is a group of formula

5 $-(CH_2)_t-Z-$ (b-1),

wherein

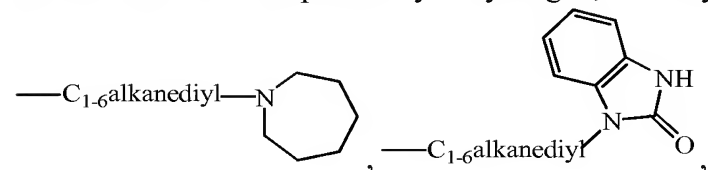
t is 0, 1 or 2;

Z is a heterocyclic ring system selected from



15

wherein each R^{10} independently is hydrogen, C_{1-6} alkyl, aminocarbonyl, hydroxy,



$C_{1-6}alkyloxyC_{1-6}alkyl$, $C_{1-6}alkyloxyC_{1-6}alkylamino$, $di(phenylC_{2-6}alkenyl)$,

piperidinyl $C_{1-6}alkyl$, $C_{3-10}cycloalkyl$, $C_{3-10}cycloalkylC_{1-6}alkyl$,

20 aryloxy(hydroxy) $C_{1-6}alkyl$, haloindazolyl, aryl $C_{1-6}alkyl$, aryl $C_{2-6}alkenyl$,

morpholino, $C_{1-6}alkylimidazolyl$, or pyridinyl $C_{1-6}alkylamino$;

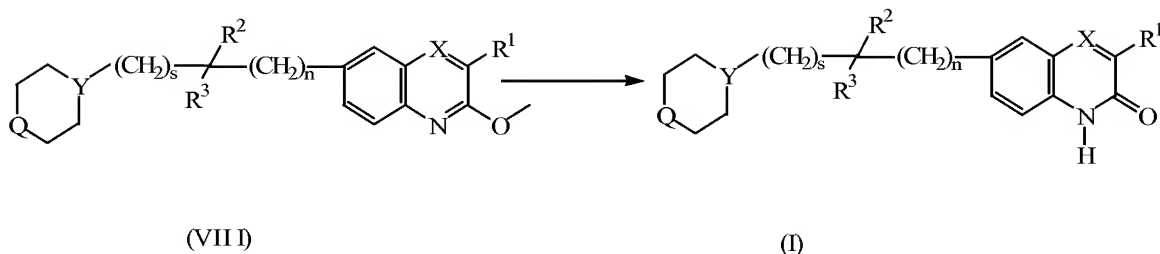
each R^{11} independently is hydrogen, hydroxy, piperidinyl or aryl;

aryl is phenyl or phenyl substituted with halo, $C_{1-6}alkyl$ or $C_{1-6}alkyloxy$.

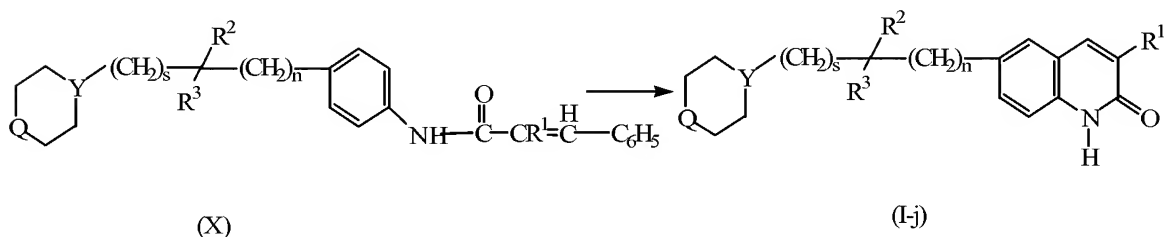
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13. (Currently Amended) A process for preparing a compound as claimed in claim 1, comprising ~~characterized by~~

a) ~~the hydrolysis of intermediates of formula (VIII), according to art-known methods, by submitting the intermediates of formula (VIII) to appropriate reagents, such as, tinchloride, acetic acid and hydrochloric acid, in the presence of a reaction inert solvent, e.g. tetrahydrofuran.~~



10 b) ~~the cyclization of intermediates of formula (X), according to art known cyclizing~~
~~procedures into compounds of formula (I) wherein X is CH herein referred to as~~
~~compounds of formula (I j), preferably in the presence of a suitable Lewis Acid,~~
~~e.g. aluminum chloride either neat or in a suitable solvent such as, for example, an~~
~~aromatic hydrocarbon, e.g. benzene, chlorobenzene, methylbenzene and the like;~~
15 ~~halogenated hydrocarbons, e.g. trichloromethane, tetrachloromethane and the like;~~
~~an ether, e.g. tetrahydrofuran, 1,4 dioxane and the like or mixtures of such solvents.~~
~~and~~



c) the condensation of an appropriate ortho-benzenediamine of formula (XI) with an ester of formula (XII) into compounds of formula (I), wherein X is N and R² taken together with R³ forms =O, herein referred to as compounds of formula (I-a-1), in the presence of a carboxylic acid, e.g. acetic acid and the like, a mineral acid such as, for example hydrochloric acid, sulfuric acid, or a sulfonic acid such as, for example, methanesulfonic acid, benzenesulfonic acid, 4-methylbenzenesulfonic acid and the like.

